

# Market Power and Business Dynamism in the US and around the World

**Ufuk Akcigit**  
(University of Chicago)

World Bank – September 23, 2021

# Research Paper #1 & #2

## Ten Facts on Declining Business Dynamism and Lessons from Endogenous Growth Theory

By UFUK AKCIGIT AND SINA T. ATES\*

*Forthcoming - American Economic Journal: Macroeconomics*

*In this paper, we review the literature on declining business dynamism and its implications in the United States and propose a unifying theory to analyze the symptoms and the potential causes of this decline. We first highlight 10 pronounced stylized facts related to declining business dynamism documented in the literature and discuss some of the existing attempts to explain them.*

## What Happened to U.S. Business Dynamism?\*†

Ufuk Akcigit  
University of Chicago

Sina T. Ates  
Federal Reserve Board

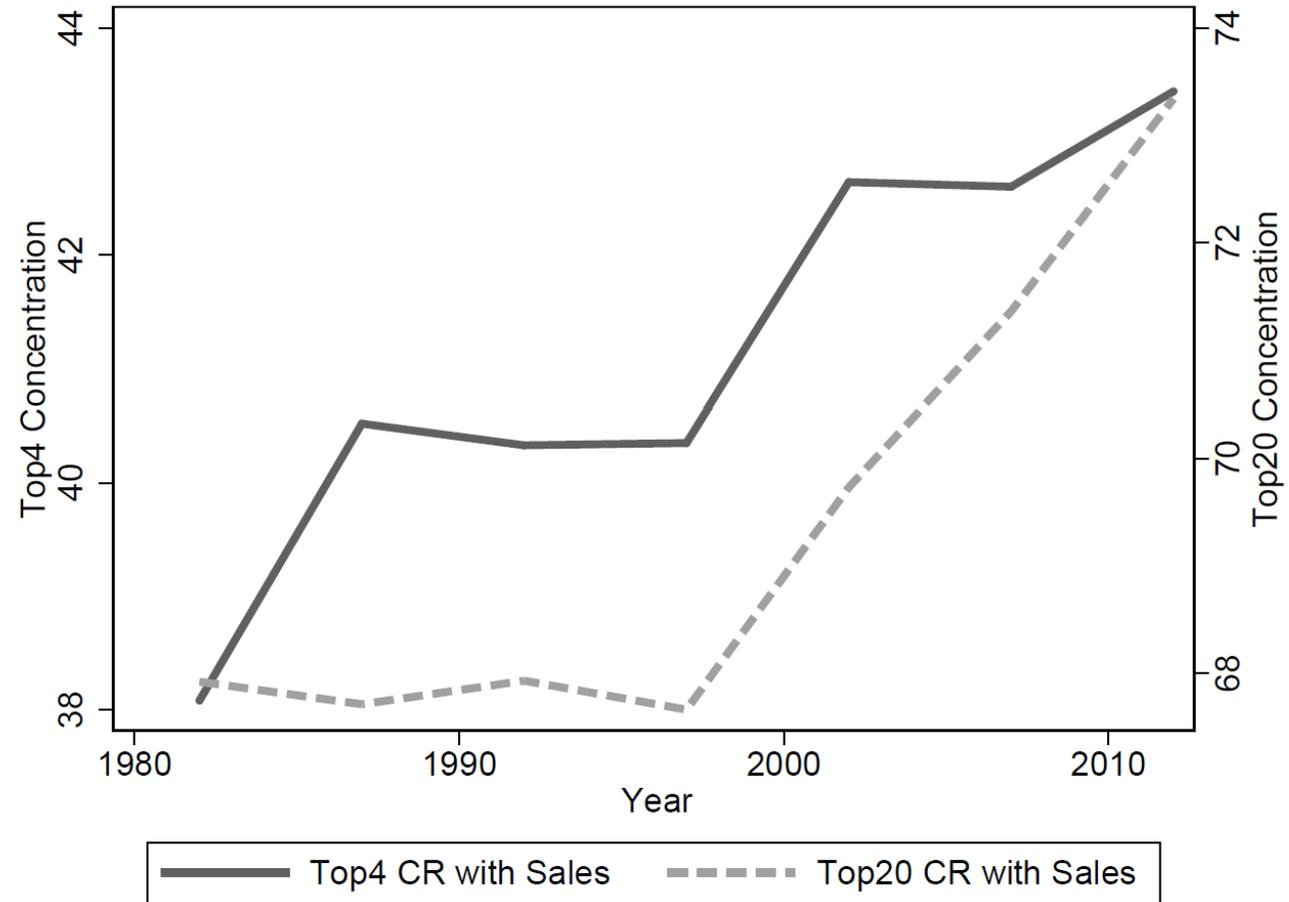
*NBER Working Paper #25756.*

### Abstract

In the past several decades, the U.S. economy has witnessed a number of striking trends that indicate a rising market concentration and a slowdown in business dynamism. In this paper, we make an attempt to understand potential common forces behind these empirical regularities through the lens of a micro-founded general equilibrium model of endogenous firm dynamics.

# Fact 1: Market concentration has risen.

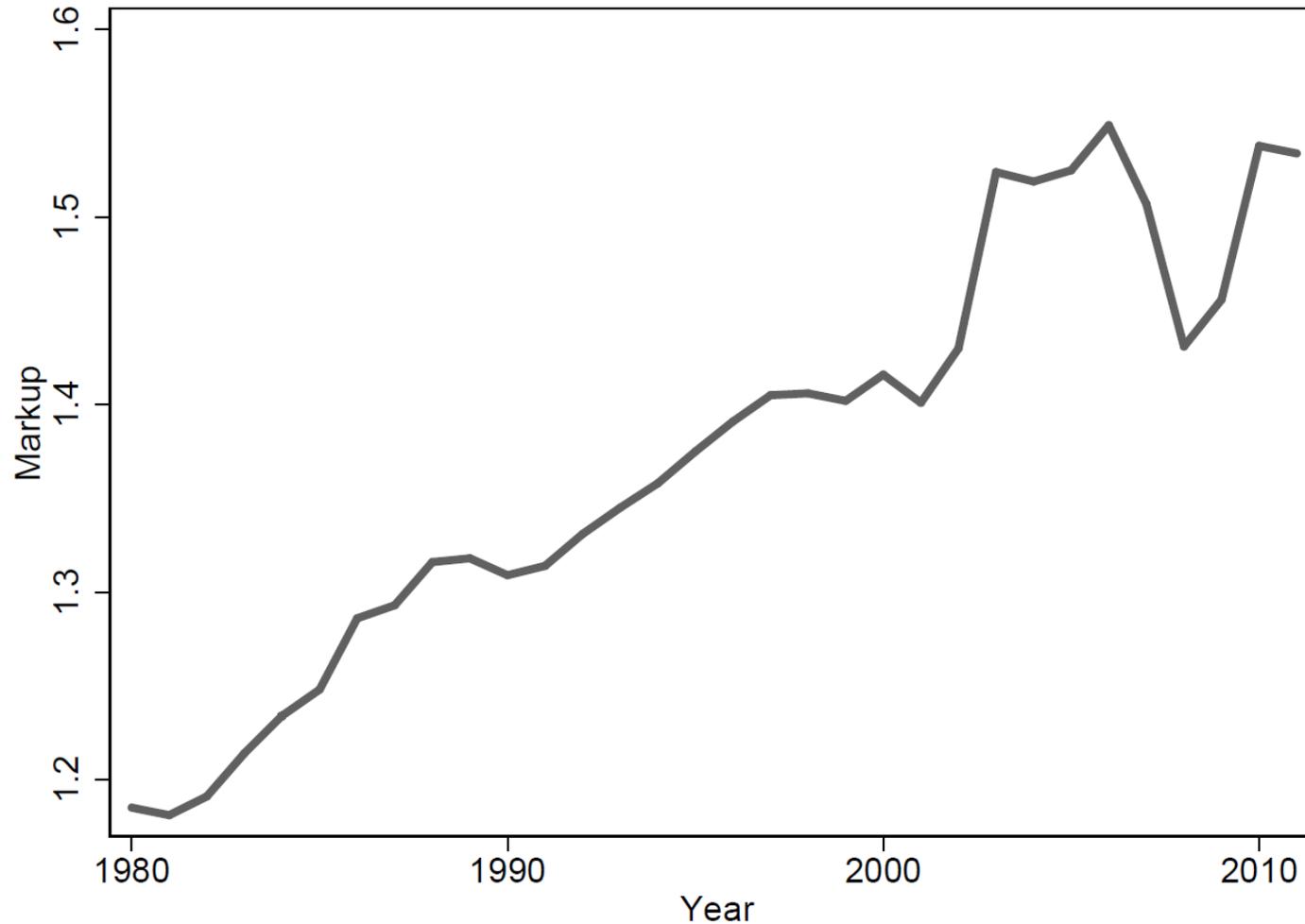
Figure: MARKET CONCENTRATION IN MANUFACTURING



Source: Autor, Dorn, Katz, Patterson, and Van Reenen  
(2017).

# Fact 2: Average markups have increased.

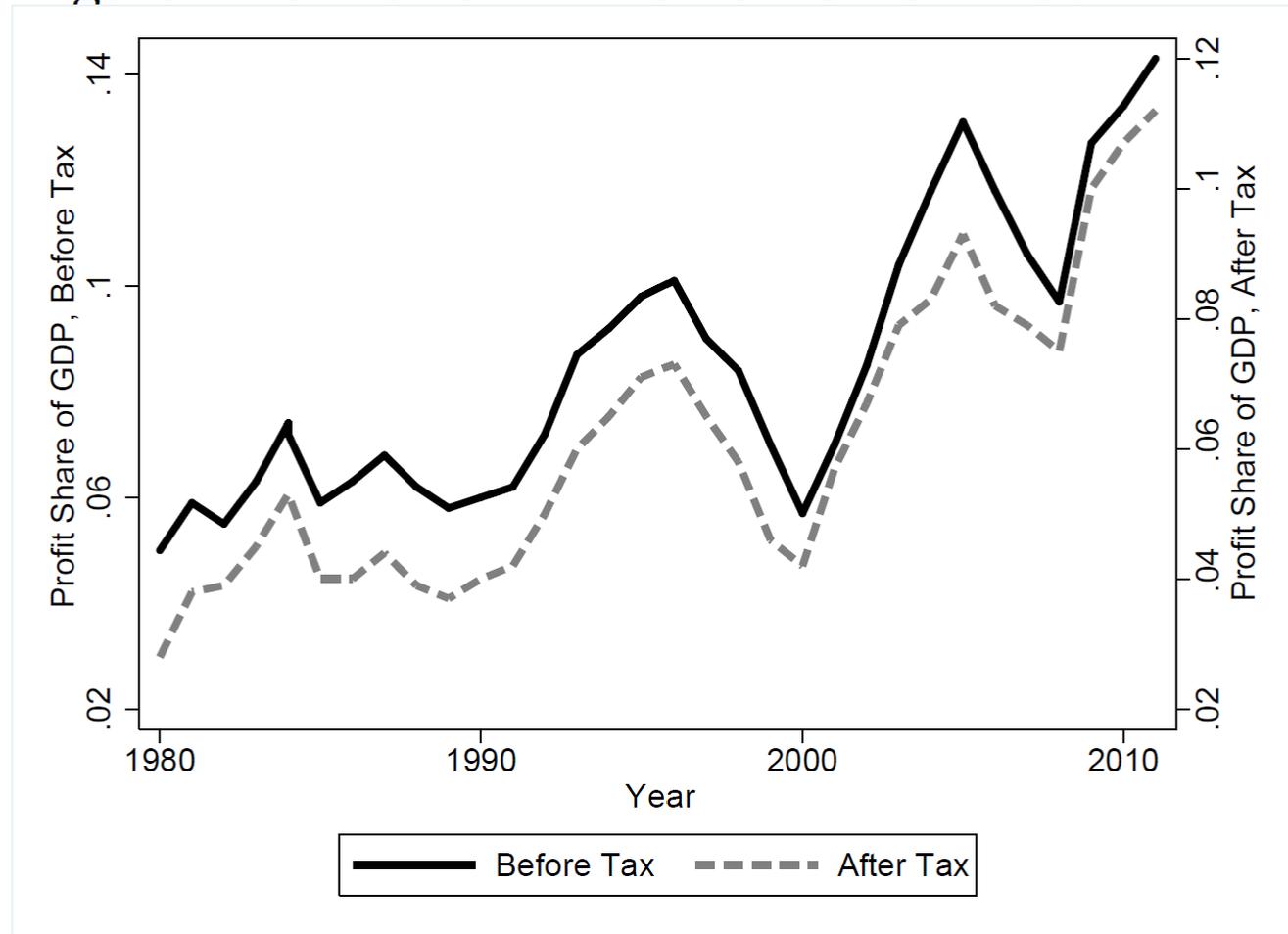
Figure: AVERAGE MARKUP OVER TIME



Source: De Loecker and Eeckhout (2017).

# Fact 3: Profit share of GDP has increased.

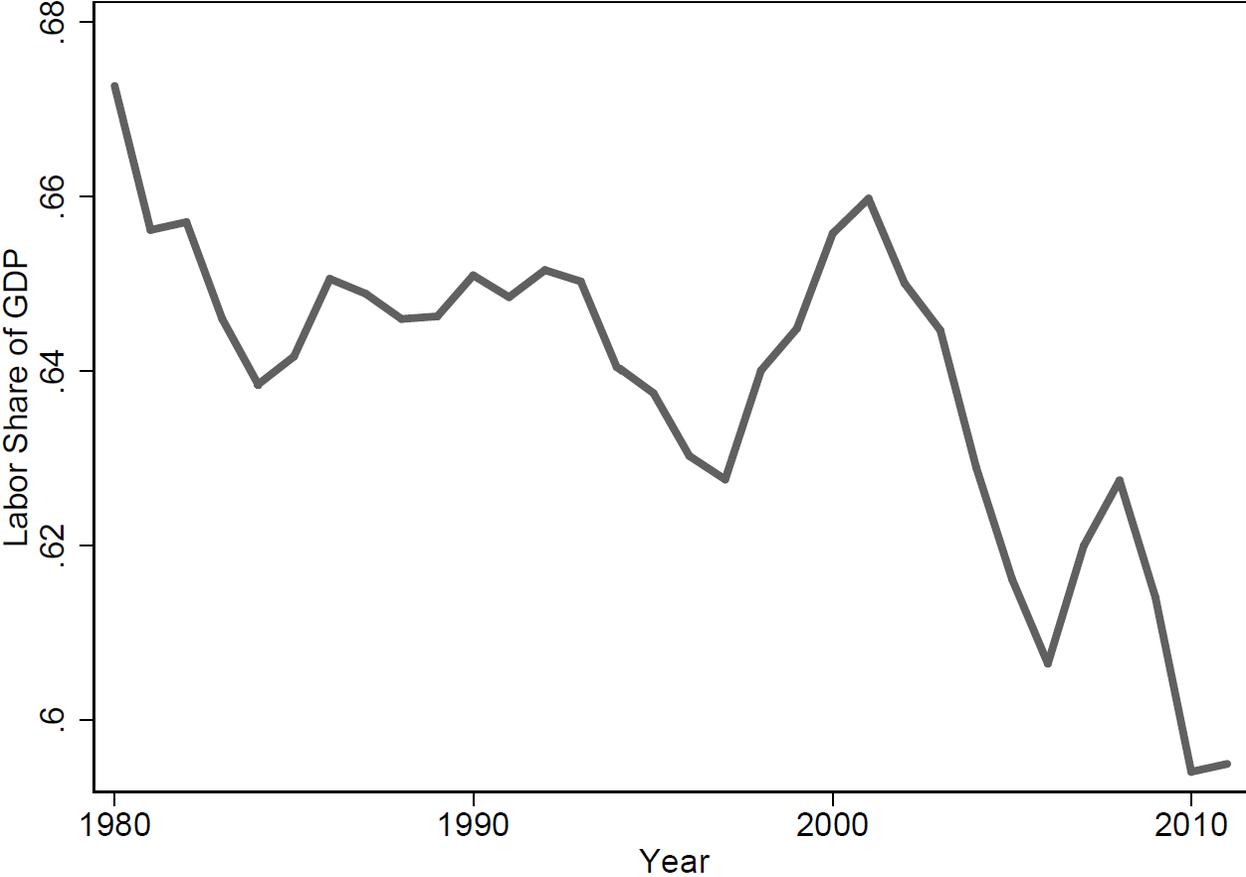
Figure: PROFITS AS A FRACTION OF GDP OVER TIME



Source: Authors' own calculation using the BEA NIPA Table

# Fact 4: The labor share of output has gone down.

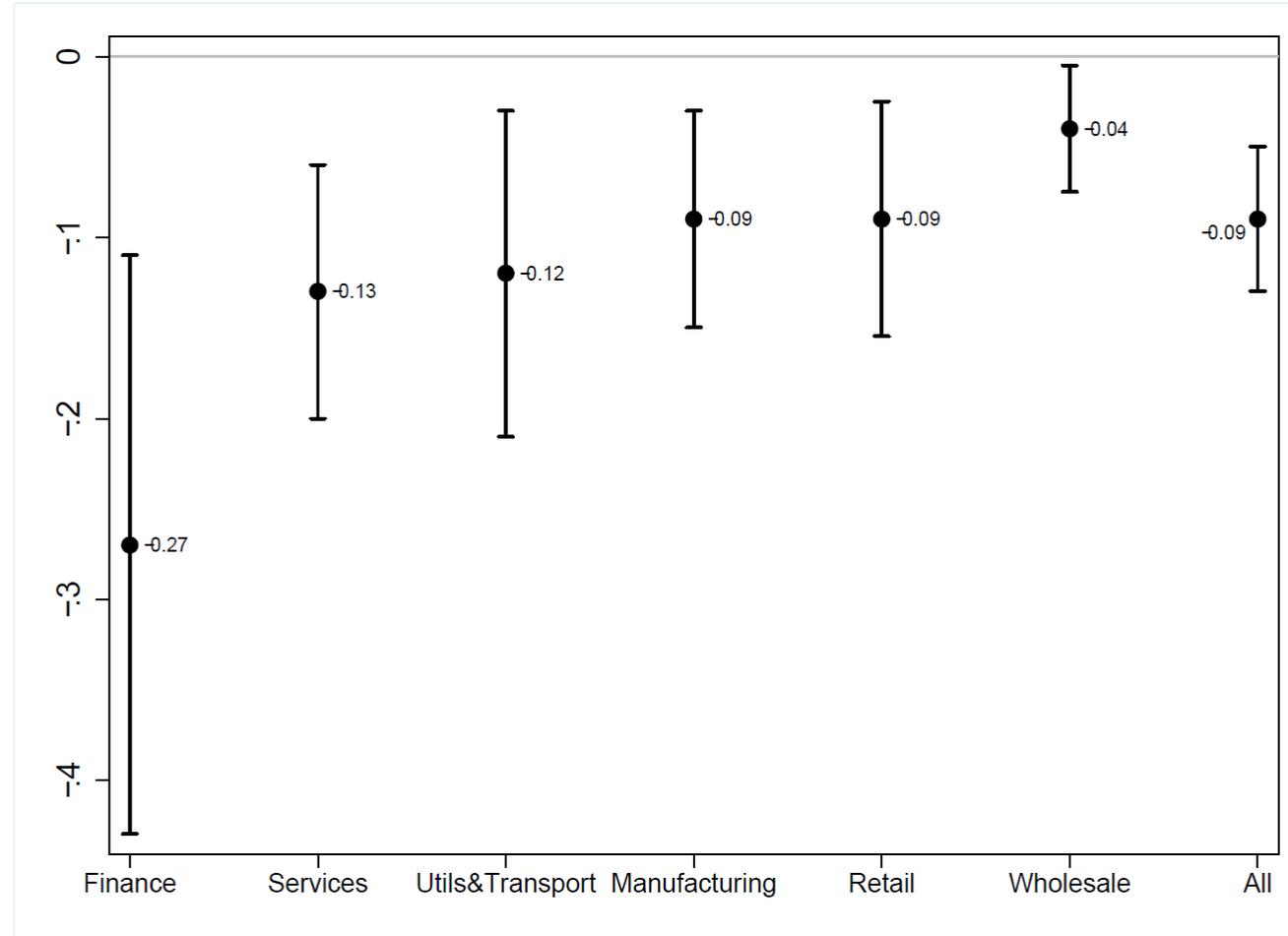
Figure: LABOR SHARE



Source: Karabarbounis and Neiman (2013).

# Fact 5: Negative correlation between concentration and labor share.

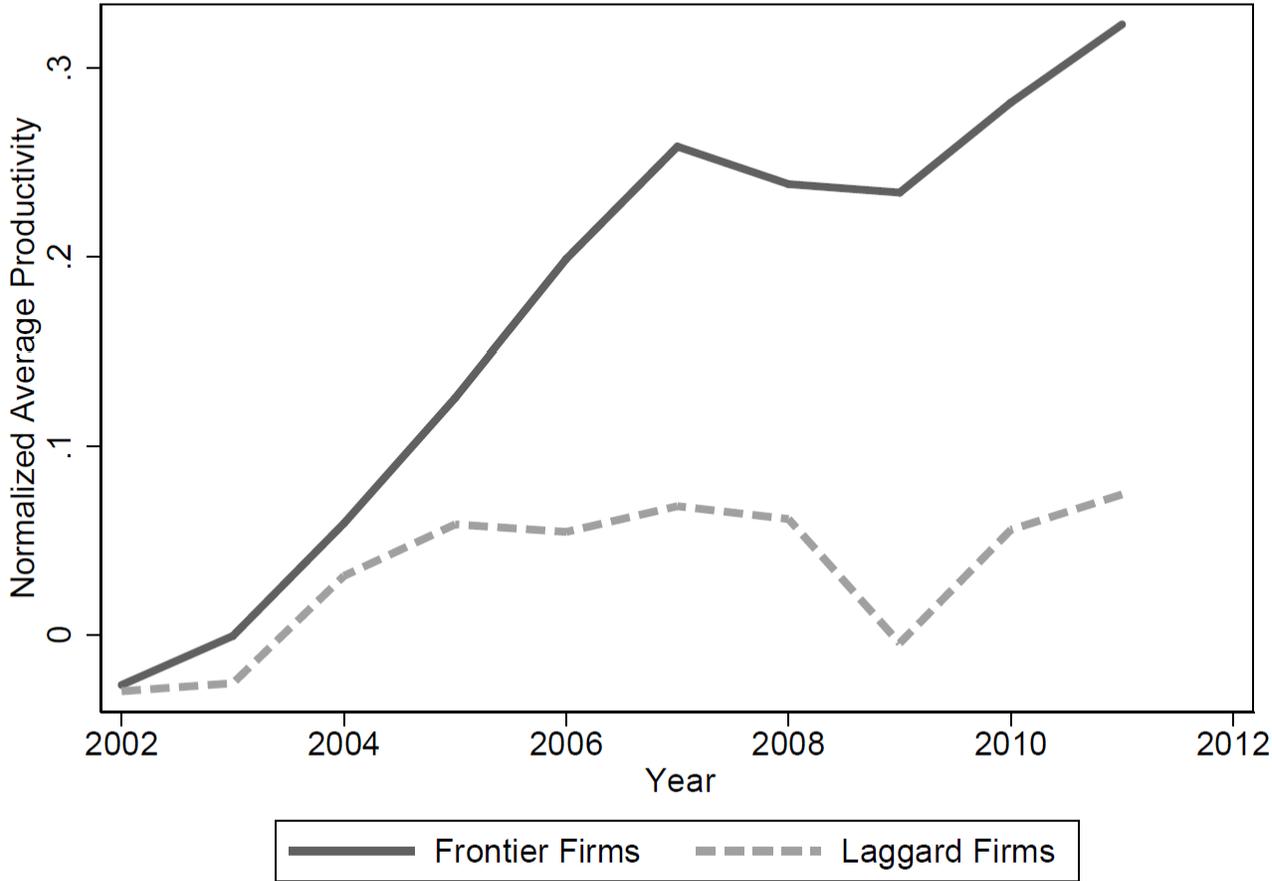
Figure: SECTOR-LEVEL CHANGES IN CONCENTRATION AND LABOR SHARE



Source: Autor, Dorn, Katz, Patterson, and Van Reenen  
(2017).

# Fact 6: Larger gap btw. frontier and laggards.

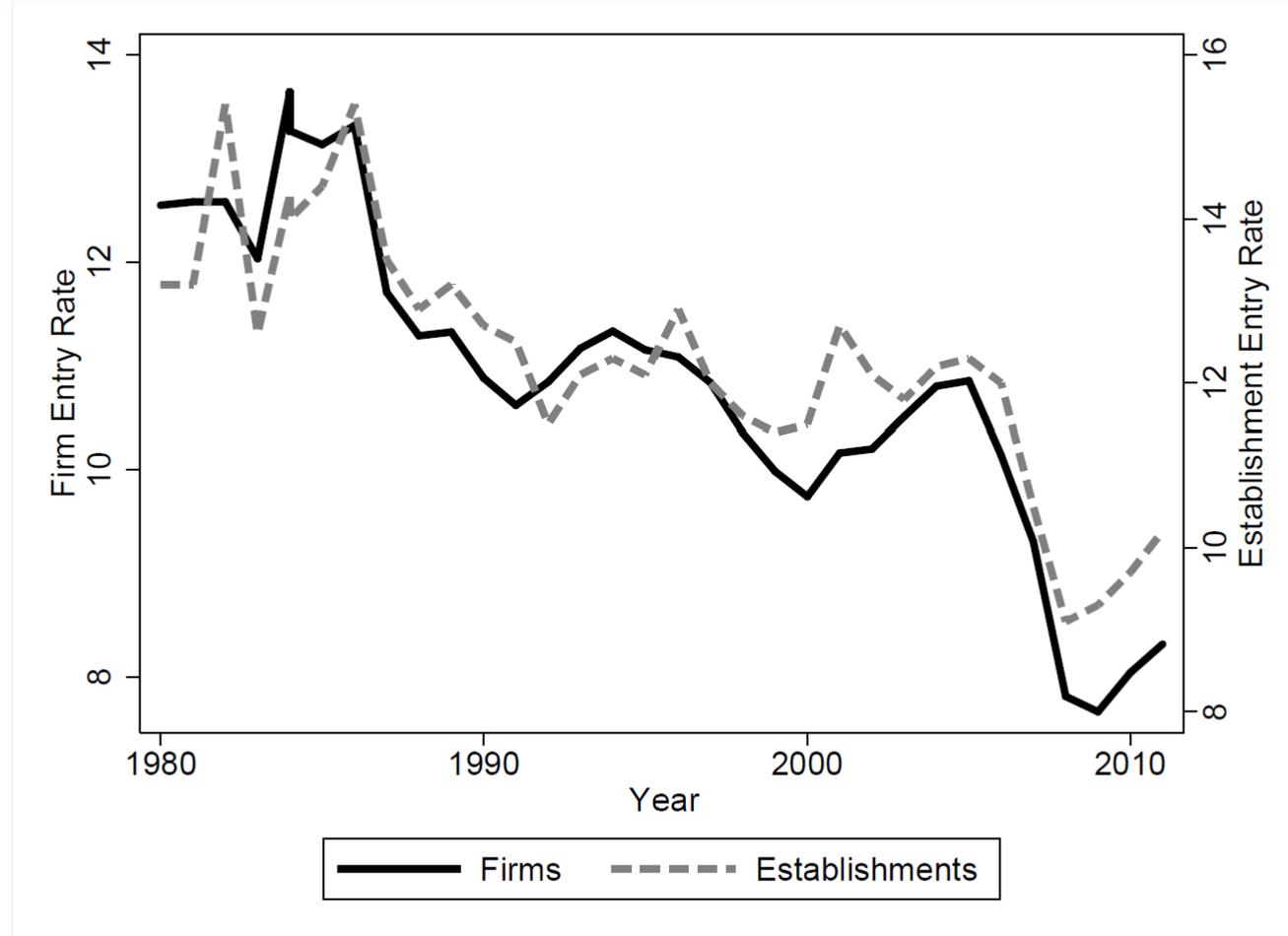
Figure: LABOR PRODUCTIVITY OF FRONTIER AND LAGGARD FIRMS



Source: Andrews, Criscuolo, and Gal (2016).

# Fact 7: Firm entry rate has declined.

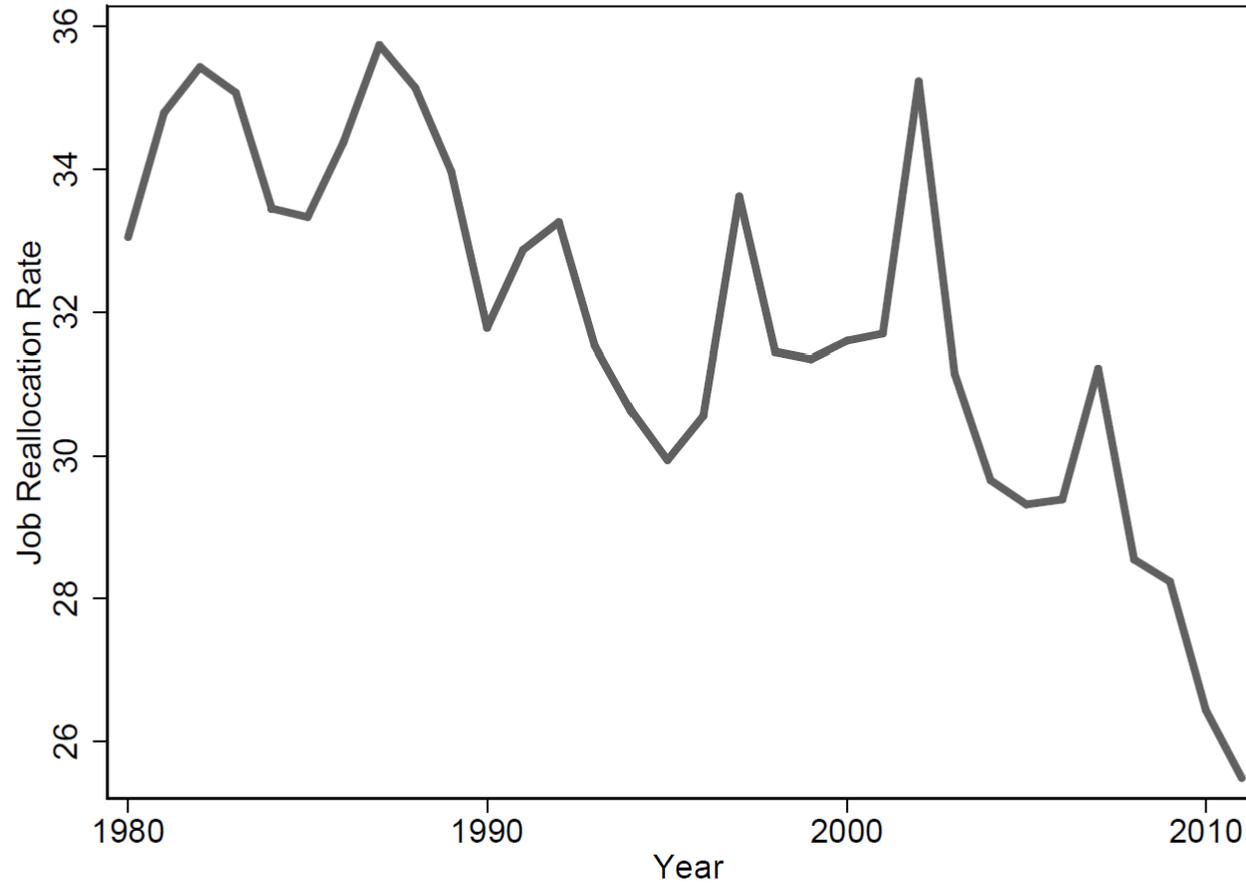
Figure: FIRM AND ESTABLISHMENT ENTRY RATES IN THE UNITED STATES



Source: Authors' calculations from BDS database [see also Decker, Haltiwanger, Jarmin, and Miranda (2016a)].

# Fact 9: Job reallocation has slowed down.

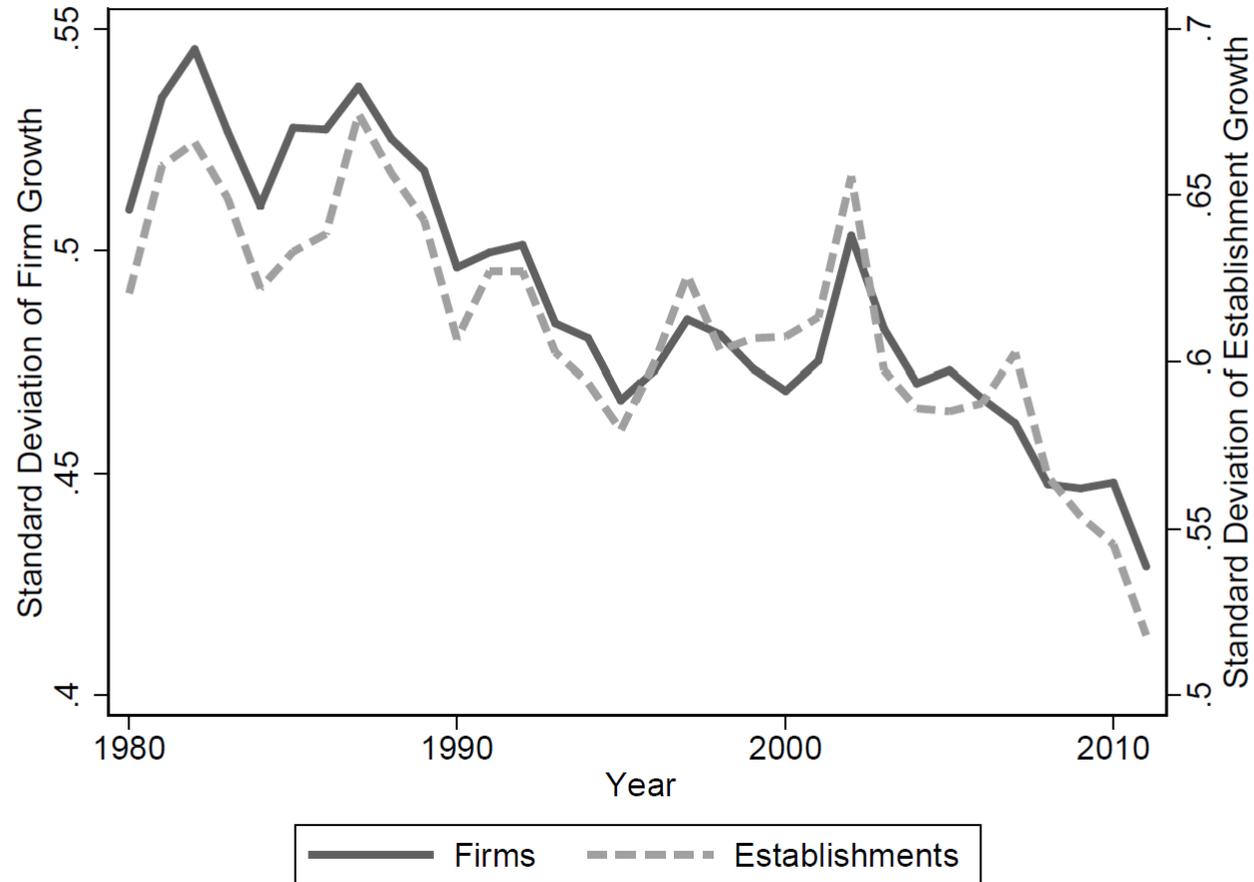
Figure: GROSS JOB REALLOCATION



Source: Decker, Haltiwanger, Jarmin, and Miranda (2016a).

# Fact 10: Dispersion of firm growth has decreased.

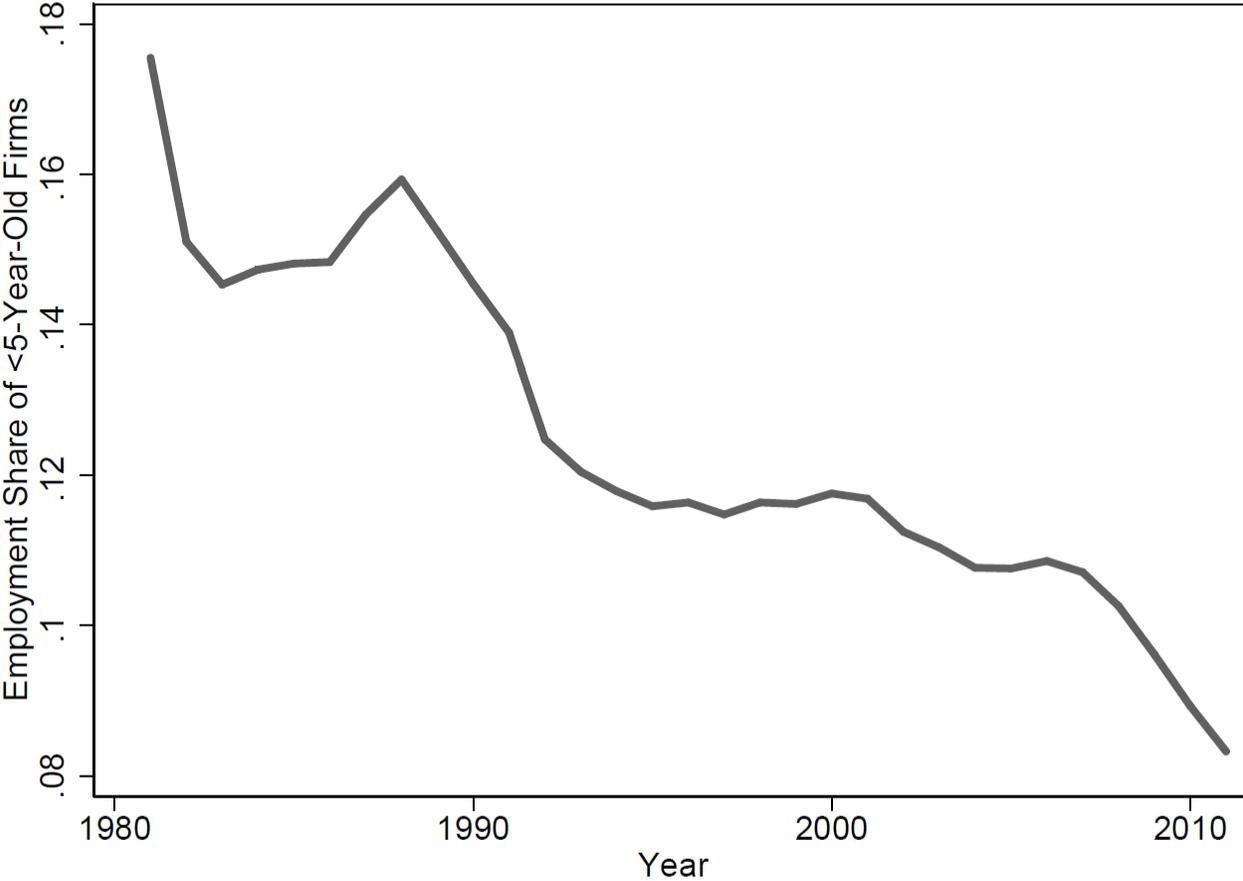
Figure: GROWTH RATE DISPERSION HAS SHRUNK



Source: Decker, Haltiwanger, Jarmin, and Miranda (2016a).

# Fact 8: Employment share of young firms has fallen.

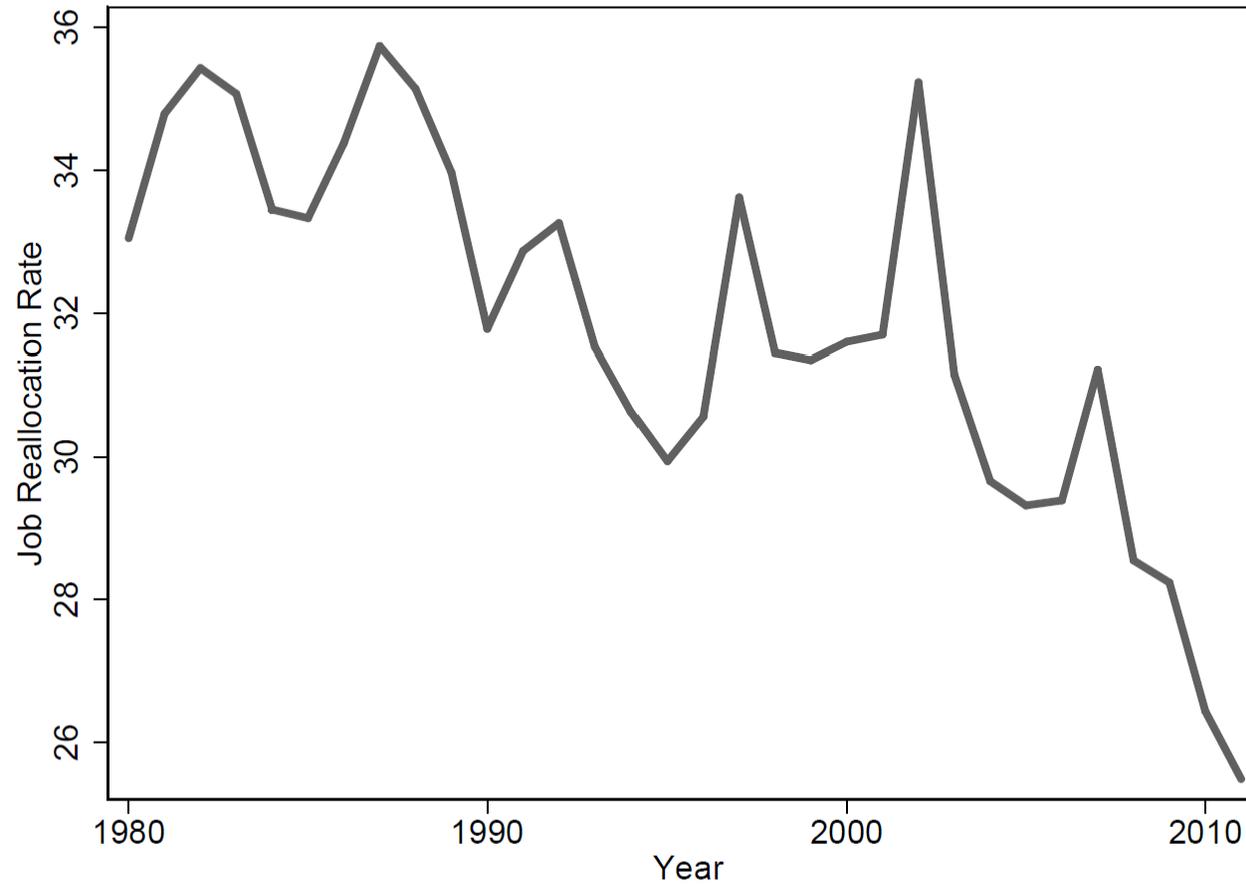
Figure: EMPLOYMENT SHARE OF <5-YEAR OLD FIRMS



Source: Decker, Haltiwanger, Jarmin, and Miranda (2016a).

# Fact 9: Job reallocation has slowed down.

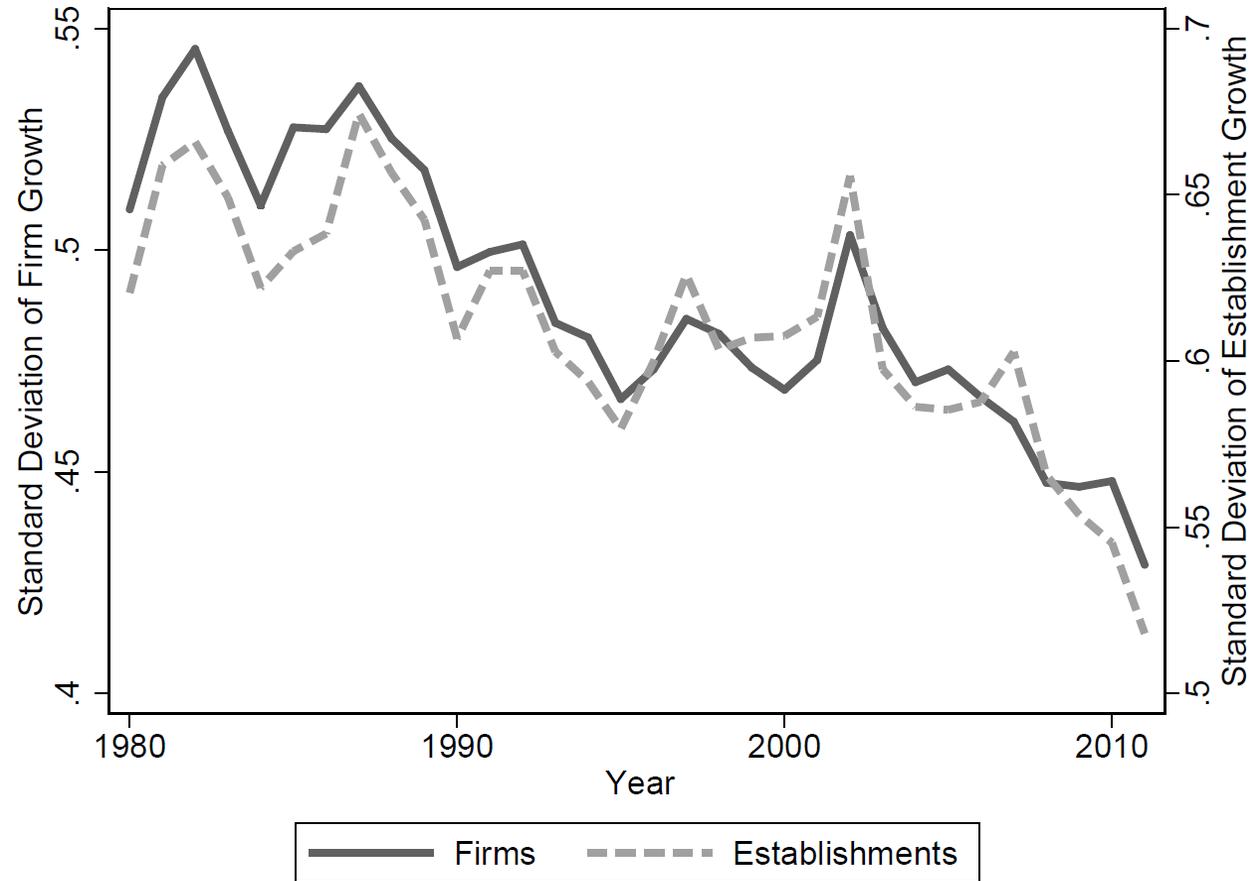
Figure: GROSS JOB REALLOCATION



Source: Decker, Haltiwanger, Jarmin, and Miranda (2016a).

# Fact 10: Dispersion of firm growth has decreased.

Figure: GROWTH RATE DISPERSION HAS SHRUNK



Source: Decker, Haltiwanger, Jarmin, and Miranda (2016a).

- The US economy has been experiencing a decline in its business dynamism:
  1. *Market concentration has risen.*
  2. *Average markups have increased.*
  3. *Average profits have increased.*
  4. *The labor share of output has gone down.*
  5. *Market concentration and the labor share are negatively associated.*
  6. *The labor productivity gap between frontier and laggard firms has widened.*
  7. *Firm entry rate has declined.*
  8. *The share of young firms in economic activity has declined.*
  9. *Job reallocation has slowed down.*
  10. *The dispersion of firm growth has decreased.*

*Why?*

*Akcigit-Ates (2020): Decline in knowledge diffusion (+ less implementation)!*

# Research Paper #3

## Connecting to Power: Political Connections, Innovation, and Firm Dynamics\*

Ufuk Akcigit

Salomé Baslandze

Francesca Lotti<sup>†</sup>

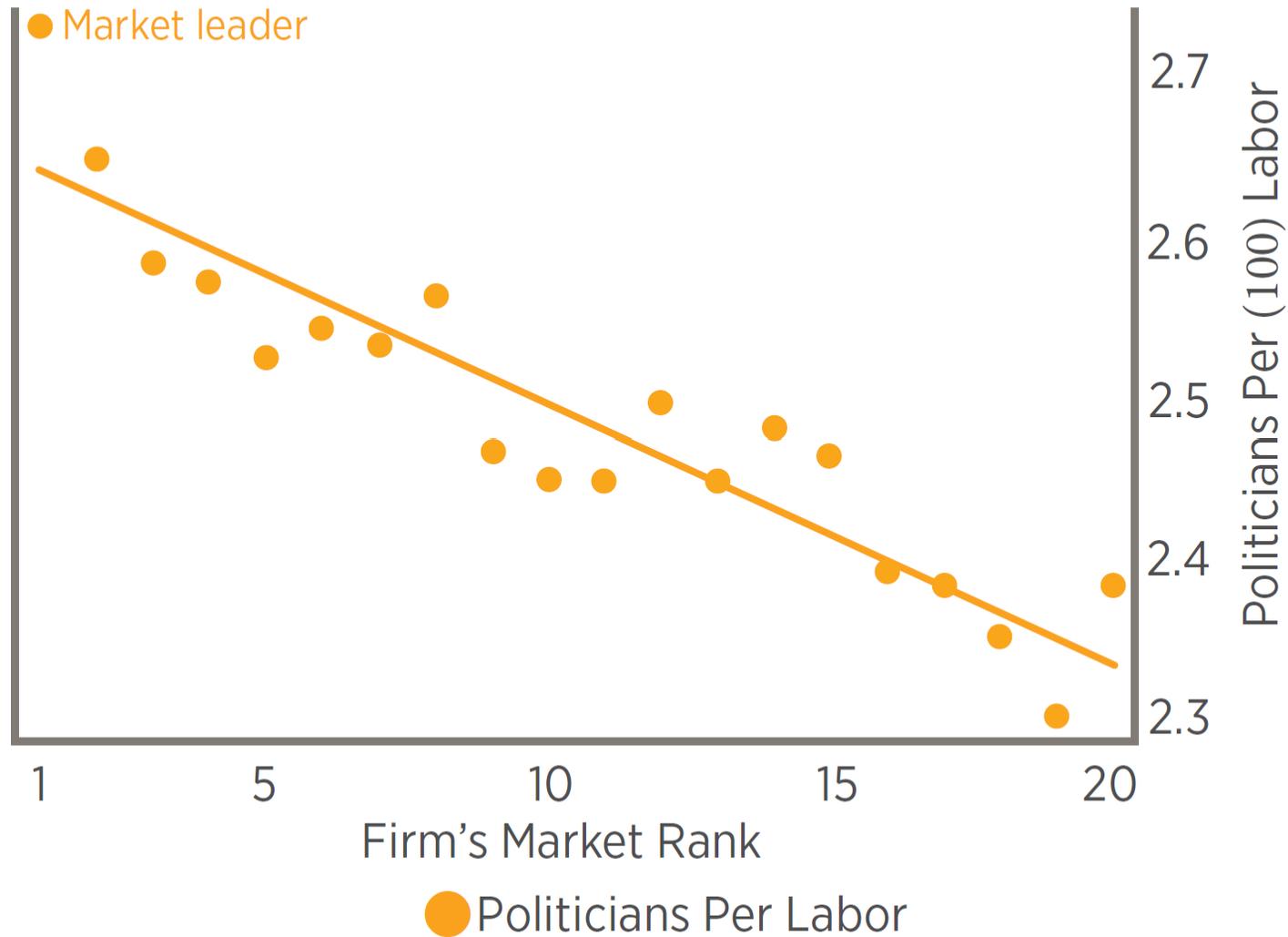
April 11, 2020

# Leadership Paradox: Connection vs Innovation



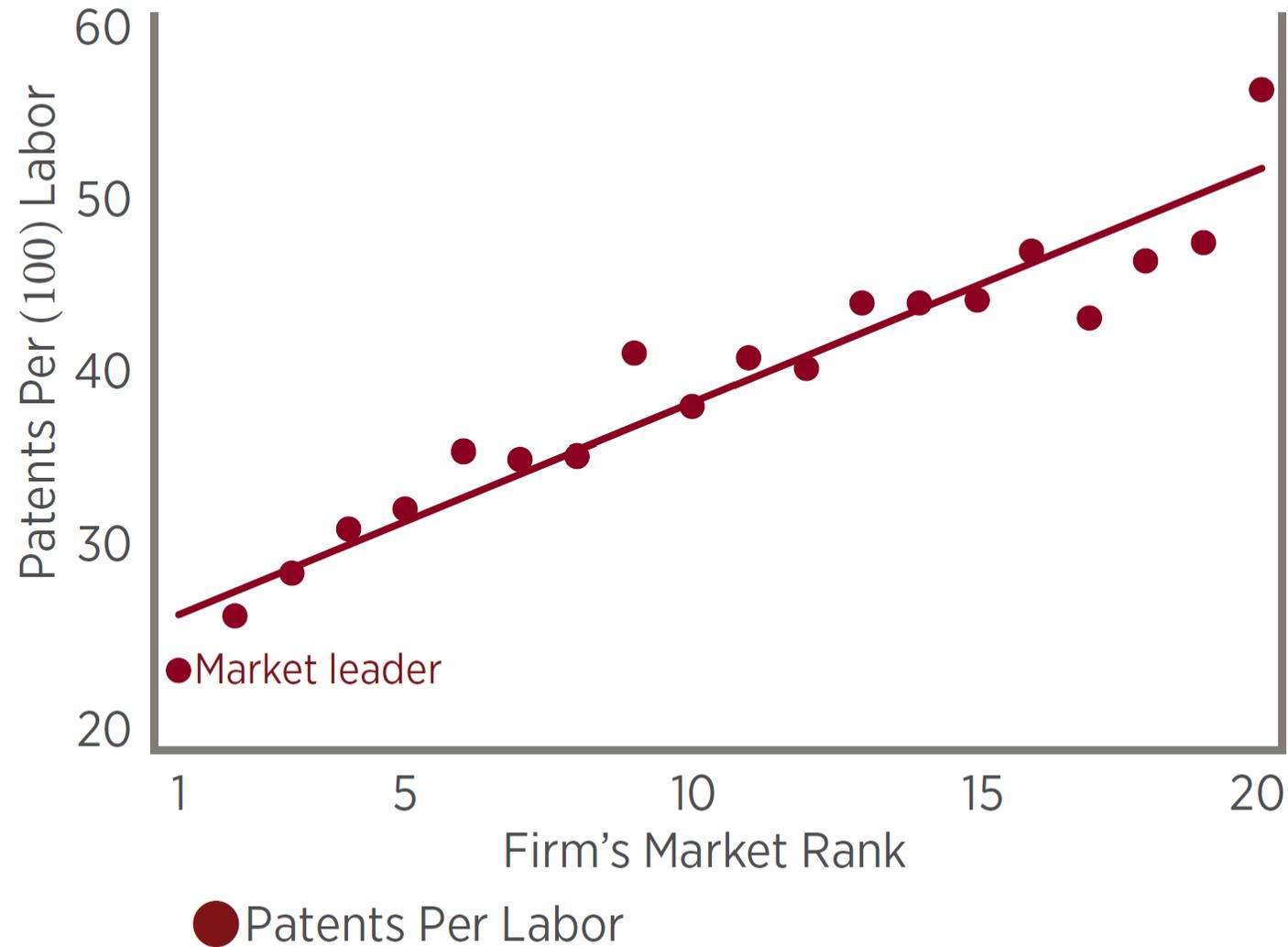
Market = 6-digit industry  $\times$  20 Regions  $\times$  1993-2014 *Source: Akcigit, Baslandze, Lotti (2018)*

# Leadership Paradox: Leadership and Connection



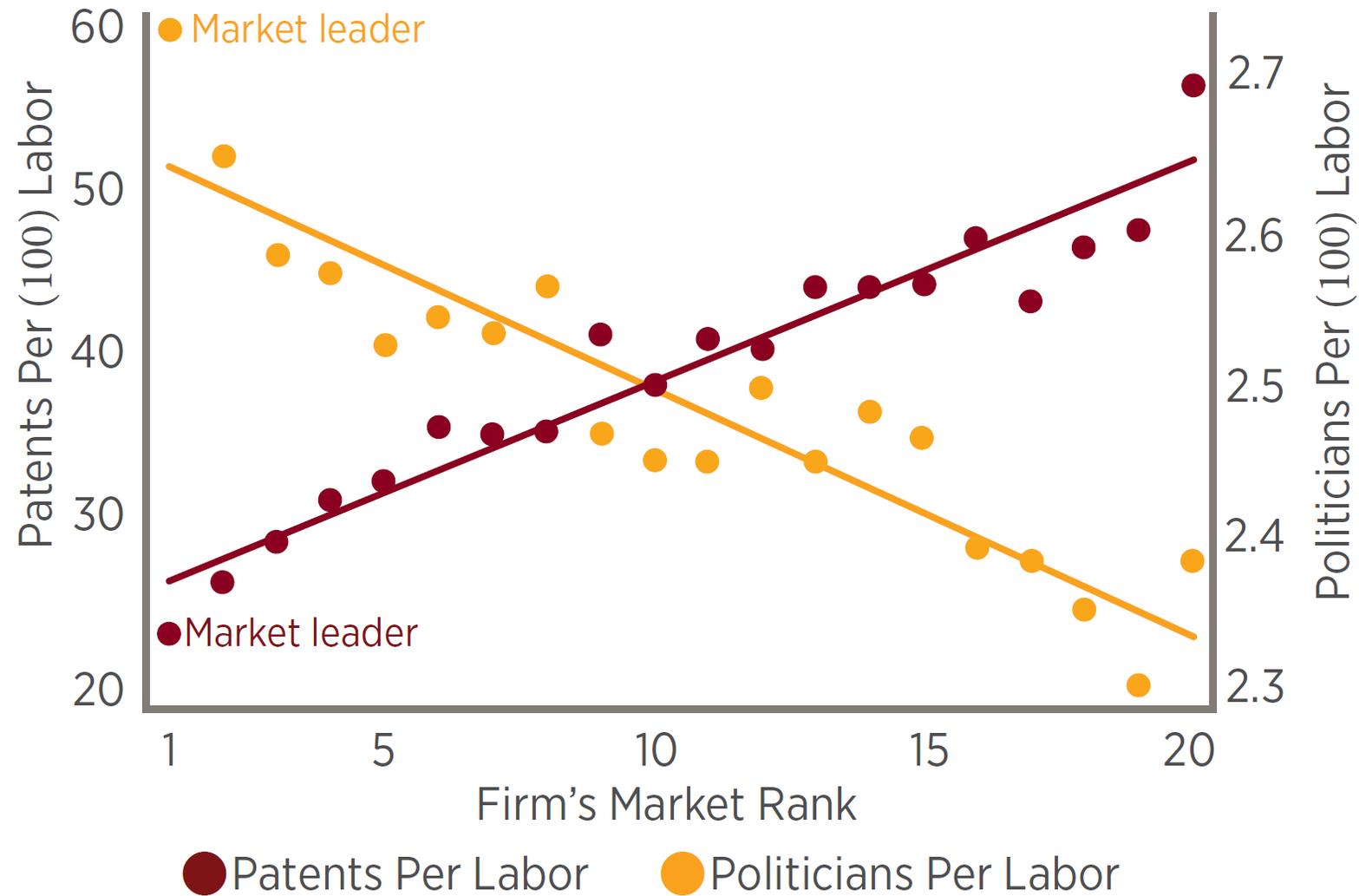
Market = 6-digit industry  $\times$  20 Regions  $\times$  1993-2014 *Source: Akcigit, Baslandze, Lotti (2018)*

# Leadership Paradox: Leadership and Innovation



Market = 6-digit industry  $\times$  20 Regions  $\times$  1993-2014 *Source: Akcigit, Baslandze, Lotti (2018)*

# Leadership Paradox: Innovation and Connection



Market = 6-digit industry  $\times$  20 Regions  $\times$  1993-2014 *Source: Akcigit, Baslandze, Lotti (2018)*

# Research Paper #4

Measuring the Employment Dynamics of Inventors\*

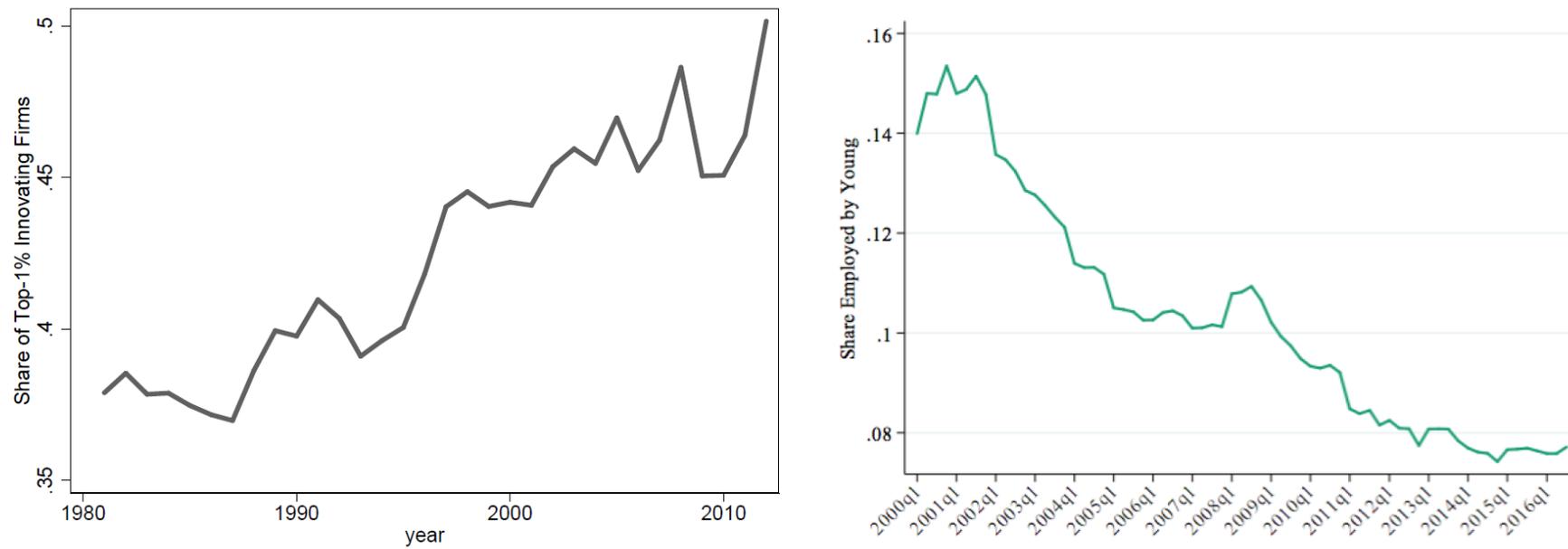
Ufuk Akcigit<sup>†</sup>

Nathan Goldschlag<sup>‡</sup>

September 23, 2021

- ▶ The decline in knowledge diffusion / implementation accounts for most.

*Patent concentration has risen and inventors shift to mature firms.*

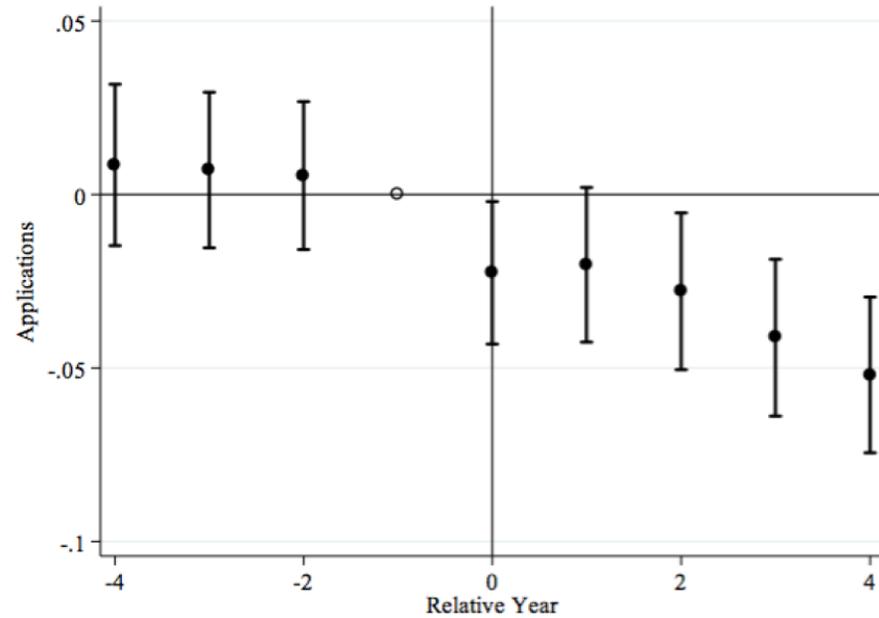


(a) Share of Patents of the Top 1% Patenting Firms (b) Share of Inventors Employed in Young Firms

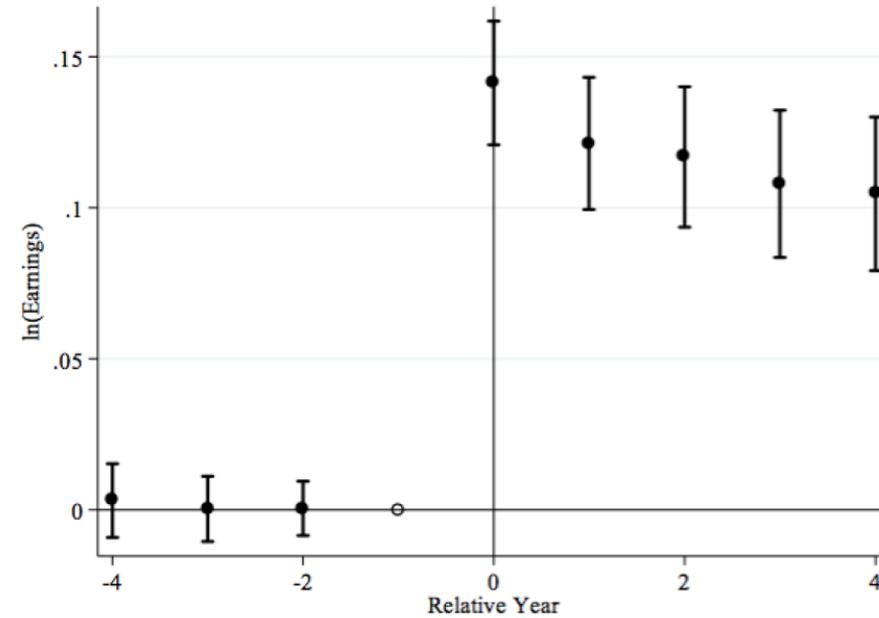
Figure: Patents and Inventors

Source: Akcigit and Goldschlag (2021)

*Inventors' productivity declines but earnings rise when employed by mature firms.*



(a) Patenting by Switching Inventors



(b) Earnings of Switching Inventors

Figure: Inventors' Patent Production and Earnings after Switching to Mature Firms

# Research Paper #5

IMF STAFF DISCUSSION NOTE

## **Rising Corporate Market Power: Emerging Policy Issues**

Ufuk Akcigit, Wenjie Chen, Federico J. Díez, Romain

Duval, Philipp Engler, Jiayue Fan, Chiara Maggi,

Marina M. Tavares, Daniel Schwarz, Ippei Shibata, and

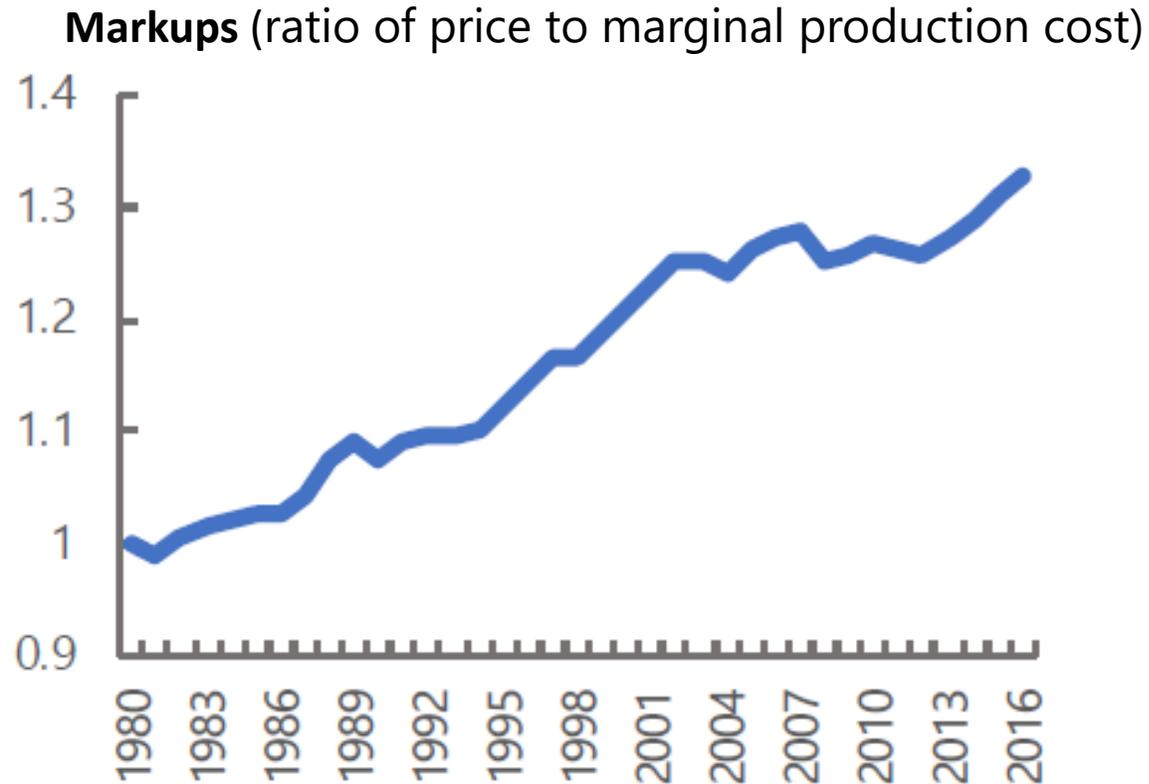
Carolina Villegas-Sánchez

2021

SDN/21/01

# Rising market power and declining business dynamism

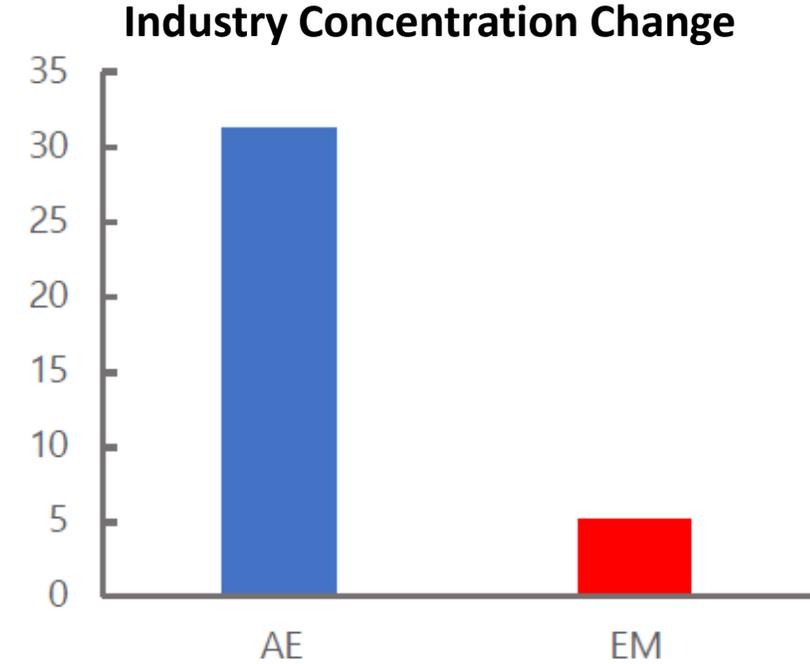
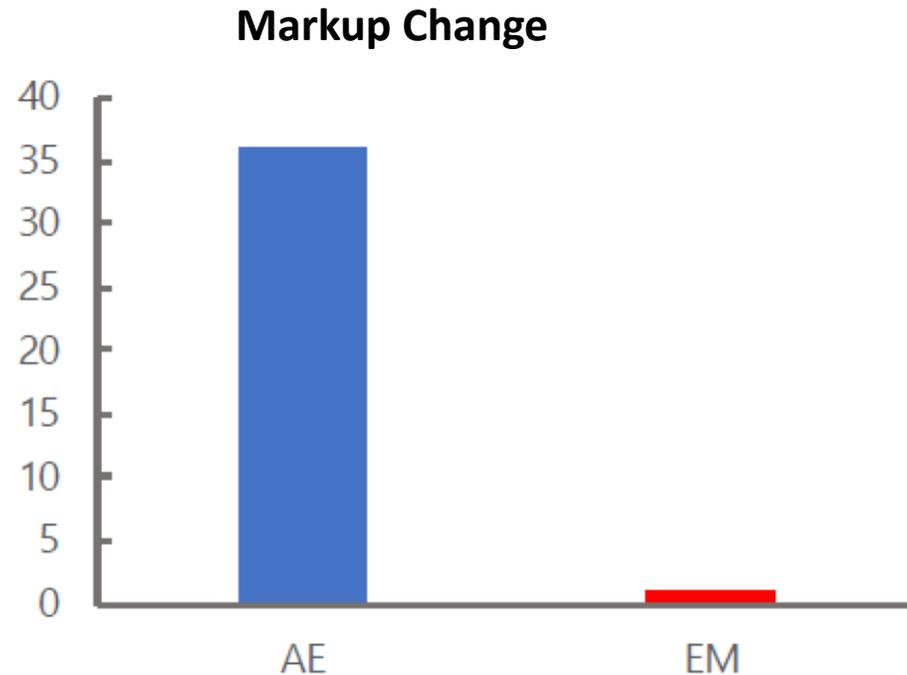
- Firm-level analysis using data from **82 countries** finds that “global” markups have increased more than **30 percent**, on average, since 1980



- The ongoing crisis results in a wave of bankruptcies that hit small and medium-sized enterprises harder. COVID-19 might strengthen this trend.

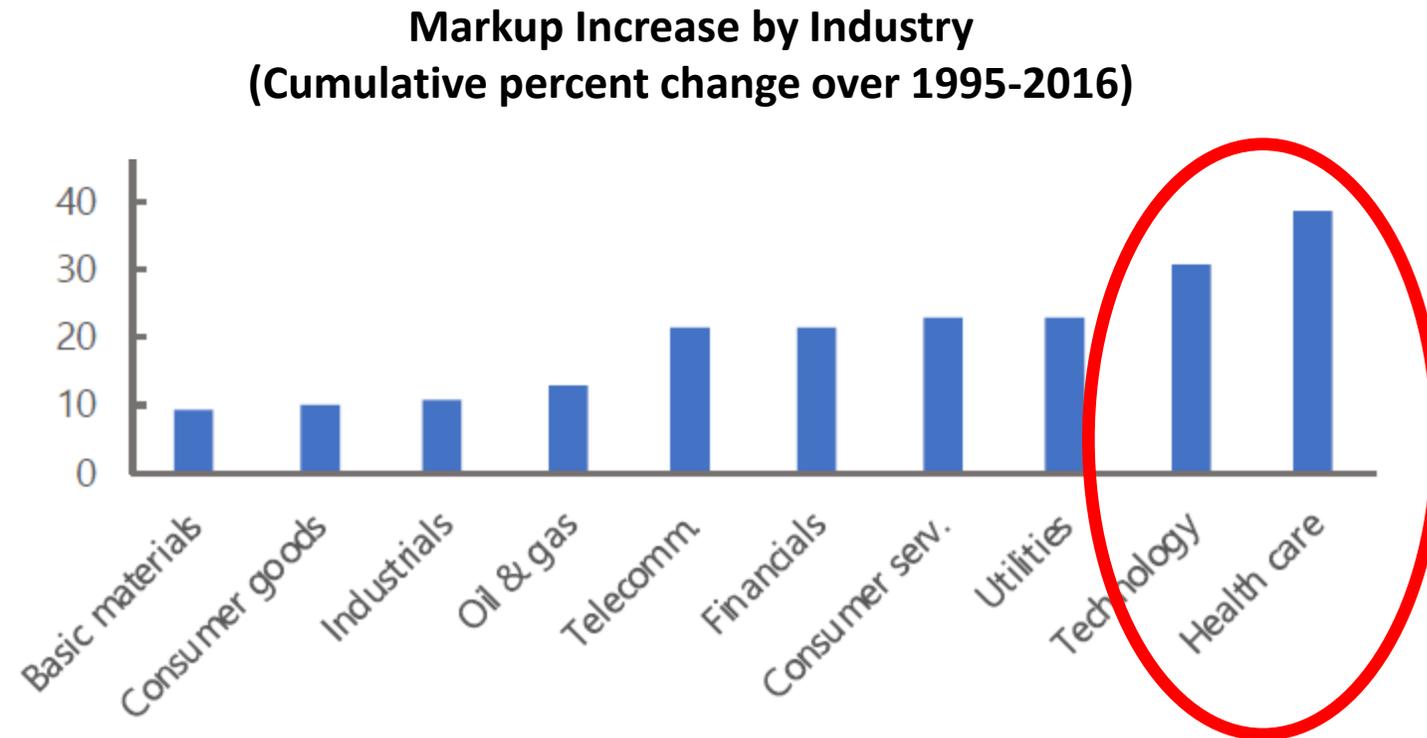
# Geographical Breakdown

- This increase is concentrated among advanced economies, where markups have increased more than 35 percent.



# Sectoral Breakdown

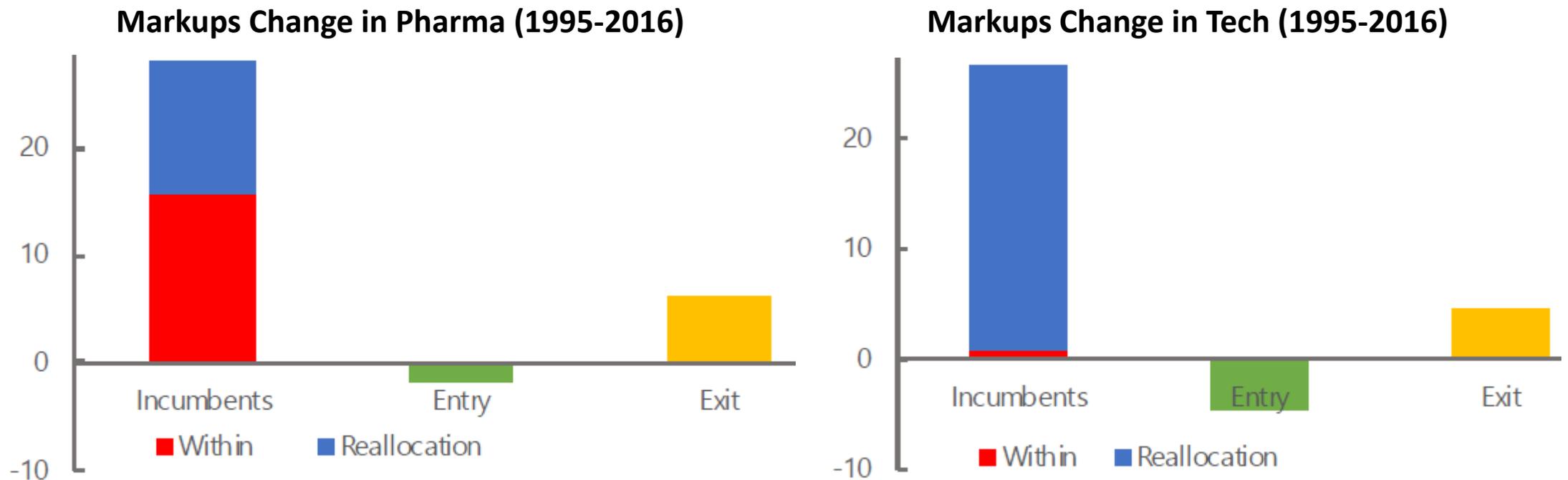
- While markups have increased among all broad industries, there is substantial cross-industry heterogeneity.



- **Technology**: Winner-takes-all.
- **Health Care**: Strong Intellectual Property Rights.

# Markup Growth Decomposition

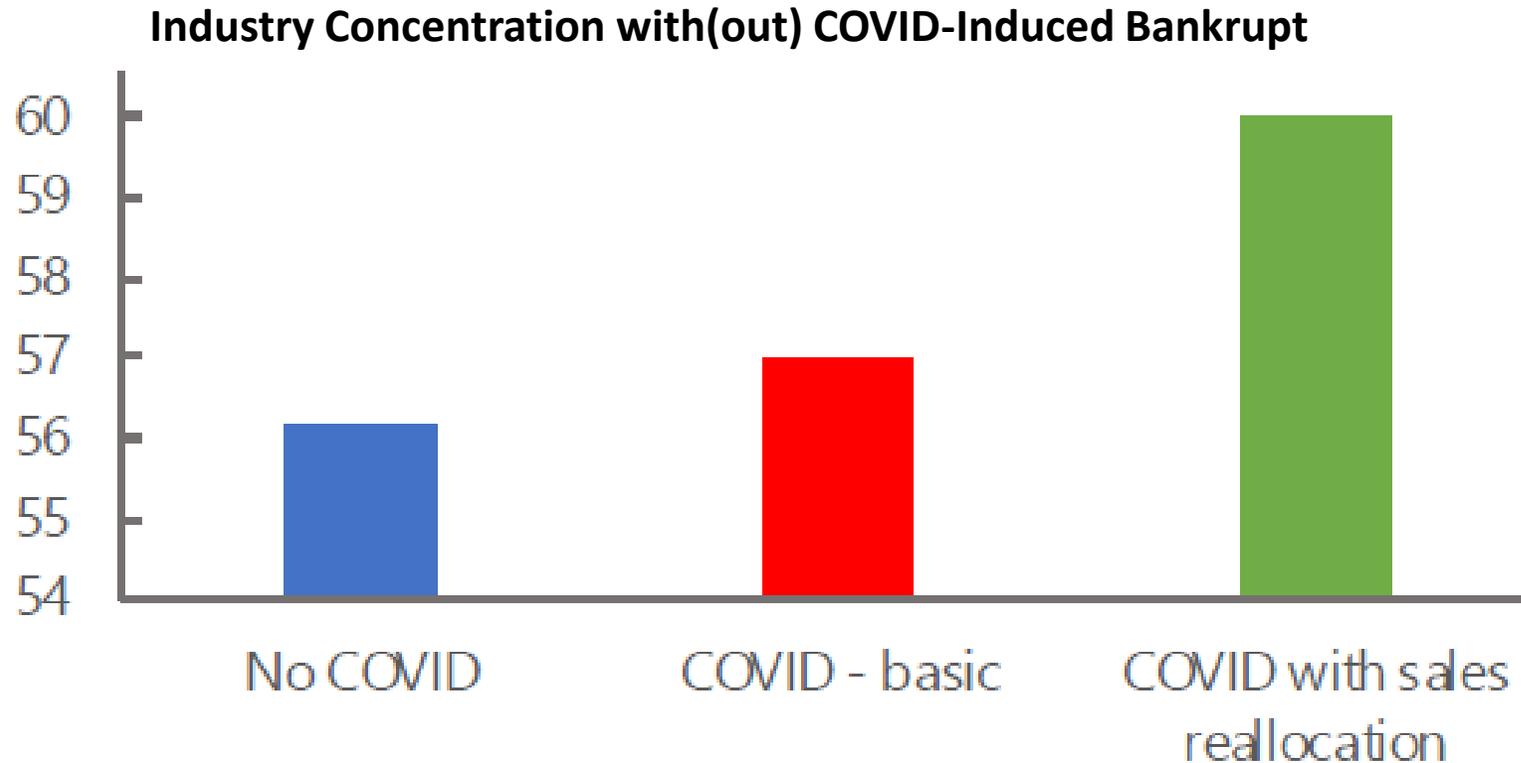
- **Pharma**: the rise of market power in pharmaceuticals reflects primarily increased markups charged by incumbent firms.



- **Tech Industry** is different. The rise is explained by the growing market share of firms with strong market power.

# COVID Effect

COVID-19 will strengthen this trend:



Industry Concentration is defined as the ratio of the sales of the top 4 firms to the top 20 firms within a country four-digit industry.

The pandemic-driven shift to online activities is also benefiting the large technology companies, which could further strengthen market concentration in their industries.

# Conclusions 1/4

- Digital economy puts new pressure on regulators
  - **quicker decisions** in an environment that is more **complex** and **fast-moving**.
  - Network effects; economies of scale and scope; winner-takes-all dynamics.
  - Data collection, together with algorithms and artificial intelligence, further strengthens such dynamics and presents new risks of **hard-to-detect anticompetitive collusion**.
  - Assess the impact of firms' activity in innovative and fast-moving markets, where the **future is often difficult to predict**.

# Conclusions 2/4

- Competition authorities must **be dynamic** have **extensive knowledge** of the digital economy—including data science, key technologies, and market dynamics—and can avert irreversible damage to competition.
  - Set up dedicated **digital market units**.
- Foreclosure of new entrants by dominant incumbents can be difficult to remedy without **timely intervention**.
- Authorities must **consider the impact on future competition** and innovation of acquisitions of businesses with the potential to become competitors of the acquirer, even if they are not strong competitors at present—for example because they have not yet monetized their customer base or data.
- Allow **consumers to retain their data** when switching between platforms (similar to retaining mobile phone number when switching between service providers).

# Conclusions 3/4

- As global markets become increasingly interconnected, regulators and competition authorities need to **work together** to avoid international fragmentation.
- Without such **international cooperation**, firms would face 130 different competition authorities with potentially divergent approaches and interests, raising firm costs and uncertainty.
- “**Data access**,” which have implications for trade policy, competition policy, and data protection, requires even greater cooperation.

# Conclusions 4/4

- Pay more attention to the **secondary market** for technologies.
- Encourage more **academic studies** on the “new” digital economy.
- Revisit the current **subsidy programs** and shut-down the ineffective ones.
- Focus more on the **human capital** side of competition.

THANK YOU!

[uakcigit@uchicago.edu](mailto:uakcigit@uchicago.edu)